

PATENT
Reply under 37 CFR 1.116
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REMARKS

Claims 24-36 and 38-45 are pending and rejected in this application. Claims 24 and 44 are amended; and claims 34, 36 and 45 are cancelled hereby.

Responsive to the rejection of claims 24-34, 36, 38, 39 and 41-45 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,230,743 (Nakamura et al.) in view of U.S. Patent No. 5,206,057 (Finnicum et al.), Applicants have amended claim 24 by including elements from claims 34, 36 and 45 and cancelled claims 34, 36 and 45, and submit that claims 24-33, 38, 39 and 41-44 are now in condition for allowance.

Nakamura et al. disclose a process for producing pressure sensitive copying paper (Figs. 3 and 4) using a coating solution 1 containing microcapsules as a main component. A wind shielding plate 11 is placed upstream of the contact area so that the free fall of the material reaches web 9 without being disturbed (column 4, lines 8-55). The coating apparatus shown in Fig. 4 has a first coating apparatus and a second coating apparatus positioned subsequent to the first coating apparatus in the direction of flow of web 9. Web 9 goes through a first curtain and a second curtain flow as it proceeds in the direction of the arrow shown on web 9 of Fig. 4. The second coating layer is formed on the first coating layer while the first coating layer is in an undried state (column 7, lines 1-50).

Finnicum et al. show a device for applying a curtain coating for photographic film in which a multi-layer material passes through slots 14 and is dropped onto a web by gravity. The curtain 17 is bounded by sidewalls 19, 20 and a lateral wall 21. A valve mechanism permits a fluid to pressurize the space between the curtain 17 and the perimeter walls via a conduit 22 and valve 23 in order to control where on the arc of the web the curtain 17 impinges. There is a space between the web and the walls (column 3, lines 20-52).

In contrast, claim 24 as amended, recites in part:

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said first application medium is applied by said first curtain applicator unit that is configured for applying an amount of said first application medium applied to said moving base, said amount being between about 2 ml/m² and about 20 ml/m², said second application medium is applied to said moving base at between about 5 ml/m² and about 30 ml/m².

(Emphasis added). Applicants submit that such an invention is neither taught, discloses nor suggested by Nakamura et al., Finnium et al. or any of the other cited references, alone or in combination, and includes distinct advantages thereover.

Nakamura et al. disclose a process for producing pressure sensitive copying paper including a coating solution that contains microcapsules of a main component. Finnium et al. disclose a device for applying a curtain coating for photographic film in which a multi-layer material passes through slots and is dropped onto a web by gravity. The European Patent Office has approved a parallel patent application of Applicants, the examination of which included the examination of Nakamura et al., with the claims substantially similar to claim 24 prior to the foregoing amendments. It is not clear how Finnium et al. may have its multi-layer material separated into separate tandem curtains, which indicates that Finnium et al. teaches away from combining it with Nakamura et al., since it does not teach the spacing between the coating curtain as described in claim 24. Further, the method in which the disclosed amounts of material are applied in milliliters per square meter is not described in any of the cited references. The spacing and amount of coating are selected to allow for an immobilization of the pre-coat on the paper web so that the application of the top coat does not impair or damage the pre-coat. Therefore, Nakamura et al., Finnium et al. and any of the other cited references, alone or in combination, fail to disclose, teach or suggest a first application medium that is applied by a first curtain applicator unit that is configured for applying an amount of the first application medium to the moving base, the amount being between 2 ml/m² and about 20 ml/m², the second application

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medium being applied to the moving base at between about 5 ml/m² and about 30 ml/m², as recited in amended claim 24.

Applicants' invention has distinct advantages in that the spacing of the two curtains and the application amounts allow for the immobilization of the pre-coat prior to the application of the top coat and allow for the application of the top coat to occur in a pressure controlled environment. Further, the wetting of the top coat on the pre-coat is improved. The use of a positive pressure between the first and second curtain causes the pre-coat to be anchored in a superior manner to the moving paper web and both curtains are stabilized with the positive pressure reducing the tendency of the coating material to flutter. If a vacuum is produced in the pressure controlled space the separation of the first application medium curtain from a guide doctor is positively influenced. For all of the foregoing reasons, Applicants submit that claim 24, and claims 25-33, 38, 39 and 41-44 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

Claim 35 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakamura et al. in view of Finnium et al. and in further view of U.S. Patent No. 5,192,592 (Shay). However, claim 35 depends from claim 24, and claim 24 is now in condition for allowance for the reasons given above. Accordingly, Applicants submit that claim 35 is now in condition for allowance, which is hereby respectfully requested.

Claim 40 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakamura et al. in view of Finnium et al. and in further view of U.S. Patent No. 5,136,970 (Faito et al.). However, claim 40 depends from claim 24, and claim 24 is now in condition for allowance for the reasons given above. Accordingly, Applicants submit that claim 40 is now in condition for allowance, which is hereby respectfully requested.

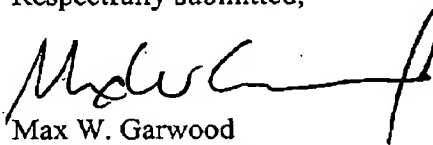
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For the foregoing reasons, Applicants submit that no combination of the cited references teaches, discloses or suggests the subject matter of the amended claims. The pending claims are therefore in condition for allowance, and Applicants respectfully request withdrawal of all rejections and allowance of the claims.

In the event Applicants have overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby conditionally petition) therefor and authorizes that any charges be made to Deposit Account No. 20-0095, TAYLOR & AUST, P.C.

Should any question concerning any of the foregoing arise, the Examiner is invited to telephone the undersigned at (260) 897-3400.

Respectfully submitted,


Max W. Garwood
Registration No. 47,589

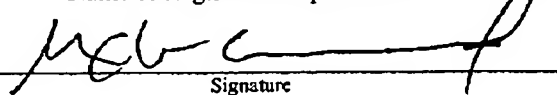
Attorney for Applicant

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being transmitted via facsimile to the U.S. Patent and Trademark Office, on: December 11, 2007.

Max W. Garwood, Reg. No. 47,589

Name of Registered Representative


Signature

December 11, 2007

Date

MWG/dc

TAYLOR & AUST, P.C.
142 S. Main Street
P.O. Box 560
Avilla, IN 46710
Telephone: 260-897-3400
Facsimile: 260-897-9300